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Abstract

Despite increases in homeownership and efforts to abolish the American homeownership gap in the late twentieth century, there is little evidence that the gap has decreased. I study the homeownership levels for five minority races and compare them to the homeownership levels of white Americans to determine whether discrimination is still the cause of this gap. To do this, I first pool five years of recent data from the IPUMS USA: ACS 2015-2019 database. I then employ the empirical model that uses two regression equations. One controls for human capital and other socioeconomic variables to determine the raw effect of race on homeownership, while the other does not control for these other variables and only includes the race variables in the equation. The difference in the coefficients of the race variable in the two equations show the explained effect of race on homeownership due to differences in the human capital control variables and to what degree for each minority. In line with common knowledge, the results show that racial differences in human capital account for some of the differences in homeownership levels. However, the coefficients show that even after controlling for other variables, there is a gap between white Americans owning homes versus the minorities. Therefore, the results suggest that minorities experience discrimination in housing markets.

I. Introduction

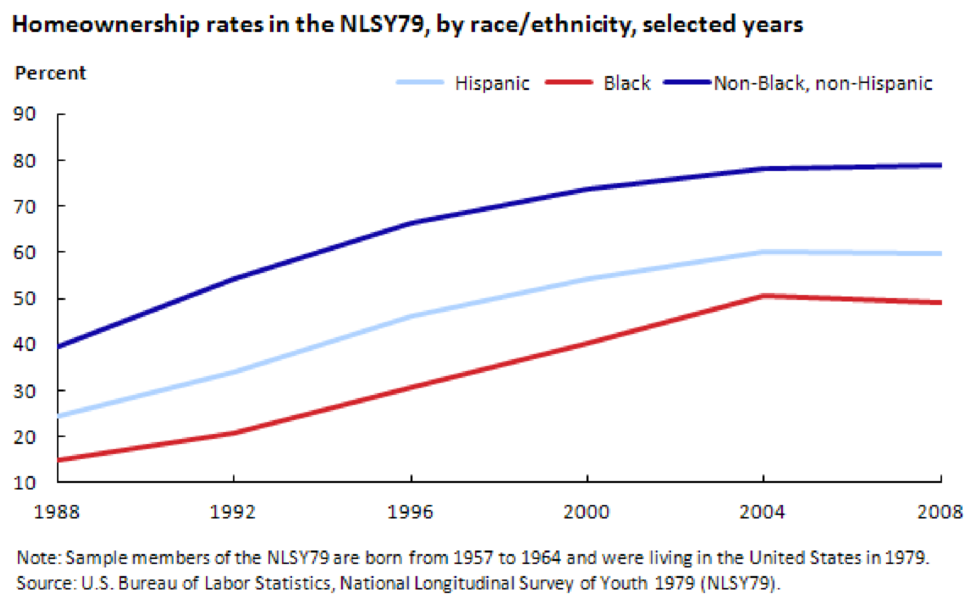
The primary goal of this study is to determine if there is racial discrimination occurring in the housing market. Specifically, the research question will be to determine whether race affects homeownership levels, or more formally, does the housing market discriminate against minorities? This is achieved by calculating the homeownership levels for minorities while controlling for as many socioeconomic variables as possible. My focus is on comparing White homeownership levels with those of African Americans, American Indians, and Asians. This research topic is important because, while legislation has been implemented to increase minority homeownership levels, the homeownership rates have remained stubbornly low for certain minorities. Due to this, my study will focus on the years 2015-2019 to look at more recent data. It is my expectation that there will remain a homeownership gap between white families and minority families of different races even after controlling for other socioeconomic determinants of homeownership.

After policy implementation and fighting for equal rights, certain markets continue to get away with racial prejudice. According to the Fair Housing Act of 1968, it is illegal to discriminate in the sale or rent of housing, including against individuals seeking a mortgage or housing assistance, or in other housing-related activities. The Fair Housing Act prohibits this discrimination because of race, color, national origin, religion, sex, familial status, and disability. Yet, almost fifty years later there is still concern about discrimination in the housing market. In one of his many studies, John Yinger wrote that even after many housing movements, there was still need for reform in the late 90s (Yinger 1998). Despite the academic concern during the 1990's, the homeownership gap between African American and White households was larger in

2006 than it was in 1990, while the homeownership gap between Hispanics and Whites was only slightly smaller in 2006 than it was in 1990 (Haurin 2006). This trend shows that the homeownership gap is not going to end soon.

The consequences of housing discrimination can be severe. One survey article by Hoff and Sen (2005) found that there is a high correlation between renter dominated and violent, crime-ridden neighborhoods (Sampson et., al 1997; Glaeser and Sacerdote, 1999; Sampson and Morenoff, forthcoming). Another study found that growing up in these neighborhoods also has a negative impact on health, personal development, and school outcomes (Leventhal and Brooks-Gunn, 2000). Additionally, a lack of confidence due to discrimination can prevent minorities from owning homes. For example, one study found that African Americans are less confident than other groups in their ability to go through the home-buying process without facing discrimination, indicating that perceptions about discrimination are often just as damning as discrimination itself (Fannie Mae 2003). The African Americans in this study rated their confidence in being treated fairly during the home-buying process much lower than the white individuals. Overall, this study also found that Americans are split on whether it is easier or harder to buy a home today than in their parents' generation. Forty-six percent say it is easier today, while 49 percent say today's home buyers face a harder task (Fannie Mae 2003).

Figure 1. The Effect of Race on Homeownership



As Figure 1 shows, the homeownership gap was still very prevalent as of 2008, even as homeownership levels increased for all races (Aughinbaugh 2013). My research hopes to clarify this relationship and establish a clear pattern between race and homeownership, meaning that a large percentage of minorities are pushed into renting or homelessness. Ultimately, the goal would be to create policies in the United States that would help ensure removal of the housing market barriers so that all races, given similar incomes, have an equal chance at owning a home in their ideal locations.

II. Literature Review

There has been a great deal of research done on the topic of racial inequality in America, however most of the research has focused on income inequality and educational attainment inequality as an effect of income inequality. There has also been some research conducted on race and the housing market, but most of that research dates to the late 90s and focuses on renter discrimination. However, there are many important studies that have found inequality for minorities in the housing market when it comes to homeownership. For example, Hoff and Sen (2005) found that segregation was still common in most urban areas across the country because minorities stay in highly ethnic neighborhoods while white Americans congregate to predominately white neighborhoods, developing an endless cycle of separation. This is evidence that inequality in homeownership is still very much a systemic concern in the United States.

Another valuable study looks at the effect of different metropolitan forces like housing stock, residential segregation, and minority composition on race/ethnic homeownership inequality (Flippen 2010). One main source of inequality discussed in this article found that when housing prices rise, there is an immediate consequence of homeowners benefiting by the rising price and renters suffering from it (Flippen 2010). This is also stated in another study conducted by Fuller (2019), where Fuller refers to this as the “incumbency effect”, meaning that any improvement in the condition of homeowners will benefit the people who already own these homes. In other words, if homes are unequally distributed and housing prices rise, the inequality between homeowners and non-homeowners must rise too (Fuller 2019). In addition, Fuller’s study found that when prices increase at different rates for different neighborhoods, there will be large differences in housing wealth within a country over time (Fuller 2019). In conclusion, all these channels that Fuller studied are causes of inequality, specifically wealth inequality, in the housing market. These price differences in different neighborhoods cause homeowners to be more responsive to neighborhood conditions than renters (Greif 2015). With a lack of homeownership in minority-based neighborhoods, there is less concern for safety since most renters are planning to stay in that location only short-term.

Raising homeownership rates and increasing the amount of available affordable housing would decrease undesirable neighborhood conditions and lead to less segregation. This perpetual cycle of low homeownership for minorities is what motivates my research.

Another article looked at the compounding inequalities across the stages of the housing exchange. This paper found specific examples of how racial stereotypes are linked to each stage of the home-buying process and how this leads to exclusion in the housing market (Korver-Glenn 2018). Korver-Glenn looks at one year of ethnographic fieldwork involving thirteen real estate agents and housing developers. One investigation that was surveyed by this paper was a study conducted by Pager and colleagues (2009) that looked at the hiring process for low-wage black, Latino, and white men (Korver-Glenn 2018). They found inequality that compounded throughout the hiring process stages. This happened because the employers relied on racial stereotypes to assess the workers' potential productivity. This reflects the same use of stereotyping that minorities face in the housing market. Another example that this article examines is racial inequality in schools. Lewis and Diamond (2015) found that school administration used stereotypes to determine consequences and punishment for students. These stereotypes relied on black criminality and white innocence and affected the outcomes of the punishments given to particular students. Again, this stereotyping in schools is like the stereotyping in the housing market where minorities are judged unfairly. Specifically, recent research on mortgage lending has also found that banks use stereotyping and discrimination when lending to minorities, which contributes to higher risk of foreclosure for minority borrowers.

After surveying numerous real estate agents, Korver-Glenn's housing exchange study (2018) found that real estate agents stay with repeat clients and neighborhoods that they like. This can cause the exclusion of clients that they are not familiar with, and keep neighborhoods segregated by race and income for generations. Agents also can help clients get loans to pay their mortgages and influence the loan officers' perceptions of the clients. This is where real estate agents' use of stereotypes in developing opinions of their clients becomes very harmful to certain minorities. Real estate agents' use of these racial beliefs influences their marketing strategies, meaning they increase marketing efforts for white clients but not black clients as the asking prices for homes increase. For minorities and minority neighborhoods, the compounding of stereotypes through the housing stages often funnels them out of the process since it sustains a chain of exclusion. If they are not funneled out of the housing exchange process, the costs for inclusion may increase substantially. On the other hand, whites and white neighborhoods experience a chain of inclusion. The evidence of stereotyping from this study provides a foundation for the theories of discrimination that I use to drive the research question about discrimination for my paper.

In addition, racial stereotyping in the housing market also leads to segregation and an increase in the wealth gap across communities. For example, Korver-Glenn also discusses a study by Flippen (2004) that found that unequal appreciation rates across neighborhoods contribute to a wide wealth gap between whites and minorities. Korver-Glenn (2018) also found that racial segregation supported predatory lending practices aimed at black mortgage borrowers, which led to high rates of foreclosure for black borrowers. Korver-Glenn (2018) then builds on this existing research by describing how racial stereotypes compound across the stages of the housing exchange, specifically with home sale transactions.

After exploring racial stereotyping in the housing market, Korver-Glenn (2018) examines how black, Latino, and white consumers are sorted away from and into homeownership opportunities. This information is then used to provide insight into the processes that contribute to educational and wealth gaps. Next, she builds on the idea that home sales have been the economically and socially dominant side of the housing market; the buying and selling of homes is the primary way that Americans accumulate wealth. For her studies, she pursued a mixed-methods research design that focused on three different urban Houston neighborhoods. She then spanned outward to include other areas over the timespan of one year. To study the home sale processes, she used case-study logic mixed with participant observation, where she asked detailed questions of the informants. Many of the informants discussed the housing market and race within the first few interview questions, before the author even asked the race-specific questions. This shows that racial differences, whether purposefully or not, are always on the forefront of people's minds, leading them to make decisions based off schemas that are a result of on-going discrimination. While this study didn't specifically explore homeownership levels or probability of minorities owning a home, it took a broader approach to finding discrimination in the housing market. My study will build off what this paper established by focusing in on differences in homeownership probability for minorities.

Another area of Korver-Glenn's (2018) study that shows evidence of discrimination in the housing market is the information they collected from real estate agents. In her field work, the author observed that real estate agents kept short lists of lenders that they referred their clients to. Many informants used racial stereotypes when discussing their clients and admitted to using these stereotypes to do their best business. For example, “black” was perceived as lazy, irresponsible, and dangerous while “white” was associated with affluence, responsibility, and education. Real estate agents also have a history of racial steering, where they direct white clients to predominately white neighborhoods and minority clients to predominately minority or integrated neighborhoods. Another way that agents build trust is by acting on the racial preferences of their customers. One real estate developer mentioned that he avoided building homes in black neighborhoods to appeal to white buyers. He did this because he assumed white buyers were lower risk, meaning higher profits, and did not think they would purchase homes in predominately black neighborhoods. Overall, this paper found that while black and Latino neighborhoods were subject to derogatory racial views, white neighborhoods were given positive racial views. This further leads to segregation and potentially lower homeownership rates for minorities, which my study is exploring for different minority races.

Masnick (2021) addresses the significance of this homeownership inequality problem and policies that may solve the discrimination. Masnick states,

> “The evidence that blacks have thus far been unable to tap into housing markets where housing values appreciate significantly over time should give us pause. Not only will home ownership fail to be as potent a mechanism for wealth accumulation within a generation, but a source of funds for down payments on houses for succeeding generations will not materialize. If we attribute the surge in black home ownership in the 1990s to the favorable economic climate of the times, we can expect the next serious recession to be particularly hard on black home ownership,” (Masnick 2021, p.4).

This paper particularly fueled my research question, because the results of my study will determine whether, post-2008 recession, homeownership inequality is still an issue for minorities.

Many studies in the housing inequality literature have focused on wealth inequality as both a cause and effect of the homeownership gap. Researchers argue that the differences in wealth are a result from discrimination in the education system, which leads to lower levels of homeownership for minorities (Chunhui 2020, Collins 2001, DeSilva 2012, Fuller 2019, Herbert 2005, Whiting 2004, Deng 2003). They also discuss how homeownership inequality is one of the main causes of wealth inequality in America. Regardless of which direction the correlation is, this is a reason to take a closer look at the homeownership gap. There are still major differences in education and income for minorities that lead to wealth inequality. This raised my interest in determining if these differences occur in homeownership as well due to discrimination or if the inequality is solely caused by differences in human capital variables. However, a study conducted in 2010 found that, "Even after differences in socioeconomic, human capital, and family structure characteristics across groups have been accounted for, minority members remain less likely to own a home, wait longer to transition into homeownership, and need higher income than whites to do so," (Flippen 2010). Another study found that, "wealth constrained whites own homes at higher rates than observationally equivalent minority households," (Gyourko 1999). This means that even though these whites had the same lower income levels that the minorities did, they had higher chances of owning homes than the minorities. This insinuates that even when income is controlled, minorities have lower homeownership probabilities and face discrimination. My research will determine if this is still the case in the more recent years of 2015-2019.

III. Theoretical Framework and Hypothesis

The foundation of economic theory that this study will use incorporates Becker's theories of taste discrimination (Becker 1971). Taste-driven discrimination theory states that people have different tastes and opinions that will cause a discriminatory environment. This can be seen in the housing market with red-lining, location preferences, and segregation of races. In the results section of my paper, I plan to discuss differences in human capital if the effect of race on homeownership is not very strong once controlling for human capital variables (Bayer 2019, Leonard 2016). This would insinuate discrimination in achieving this human capital for minorities, which again would lead back to the Theories of Discrimination.

The hypothesis that this study will test is that minorities are less likely to own a home, even after controlling for human capital related determinants of homeownership, meaning that there is discrimination in the housing market. This prediction is supported by the theories of discrimination and previously discussed literature about inequality in the housing market. Lower homeownership probability could be the result of Taste Discrimination from decades of red-lining and neighborhood segregation, or mortgage lenders denying loan applicants based off perceptions of the entire racial group rather than individual characteristics. Should the results still show a large gap in home ownership probability between minorities and non-minorities after controlling for the available human capital variables (education, marital status, income, etc.), both theories of discrimination would state that minorities will be less likely to own a home due to discrimination. In other words, both theories of discrimination would say that discrimination is occurring if my hypothesis that minorities are still less likely to own a home after controlling for human capital variables is supported by the regression results.

IV. Data and Empirical Model

The database that I am using for this study is The American Community Survey (ACS) drawn from IPUMS USA (Ruggles, et al, 2021). My sample consists of a 1-in-100 national random sample of the population pooled from five years and contains all households and persons from the 1% ACS samples for 2015, 2016, 2017, 2018, and 2019. I selected only the individuals that were between the ages of 20 and 70 for my study since those are primarily the ages for owning a home. For this subset of the sample that I am using, there are 7,142,794 observations of 22 variables. I am choosing to look at only the five most recent years because much research has already been done on years prior to the 2008 housing crisis and I want to see if the homeownership gap is currently still a large problem in America, even with all the recent movements for equality.

The research hypothesis can be tested using RStudio with first, descriptive statistics that will help show details of the variables to better understand the data and second, two regression equations that will determine the relationship of the dependent and independent variables as well as significance, controlling for human capital variables. Equation 1 will include only the race variables without controlling for the other socioeconomic variables, and Equation 2 will include both the socioeconomic variables and race variables. The race dummy variable contains white, African American, American Indian, Chinese, Japanese, and other Asian categories. This study focuses on comparing minorities to whites, so the white variable is left out of the two regression equations to see the full effect of being one of those minorities on homeownership compared to whites. Using these two different regression equations allows me to measure the differences in the race variable coefficients in the two models to determine the amount of inequality explained by the control variables and see if there is discrimination taking place in the housing market. The larger the difference in the race coefficients between the two equations, the better the control variables are at explaining the effect on homeownership. The remaining effect of race on the probability of owning a home after controlling for the socioeconomic variables is the component that I am predicting will show discrimination. The two regression equations that I am testing in RStudio are as follows:

Equation 1: Race Only

$$own\_house = \alpha_0 + \alpha_1 African\_American + \alpha_2 American\_Indian + \alpha_3 Chinese + \alpha_4 Japanese + \alpha_5 Other\_Asian$$

Equation 2: Complete Model with Race, Human Capital, and Demographic Characteristics

$$own\_house = \beta_0 + \beta_1 white + \beta_2 african\_american + \beta_3 american\_indian + \beta_4 chinese + \beta_5 japanese + \beta_7 other\_asian + \beta_8 education + \beta_8 age + \beta_8 income + \beta_8 emp\_status + \beta_8 gender + \beta_8 marital\_status$$

Table 1 shows the separate percentages of individuals that own homes, are college graduates, and are employed for each race. In addition, this table also shows the average incomes for each race subgroup. This information is helpful for the initial analysis of the data set that I am working with.

Table 1. Homeownership Rates, Education Rates, Employment Rates and Average Incomes

	White	**Black**	**American Indian**	**Chinese**	**Japanese**	**Other Asian**
Own Home	74.31%	51.30%	62.74%	72.90%	69.02%	65.23%
College Grad	38.85%	26.66%	16.14%	65.05%	62.24%	57.21%
Employed	96.23%	91.70%	89.41%	96.24%	97.56%	96.10%
Avg. Income	$61,394	$40,822	$37,648	$75,322	$76,199	$67,011

Notes: Data pooled from IPUMS USA ACS 2015-2019 1% yearly samples. Only ages 20-70 included. 7,142,794 observations of 22 variables.

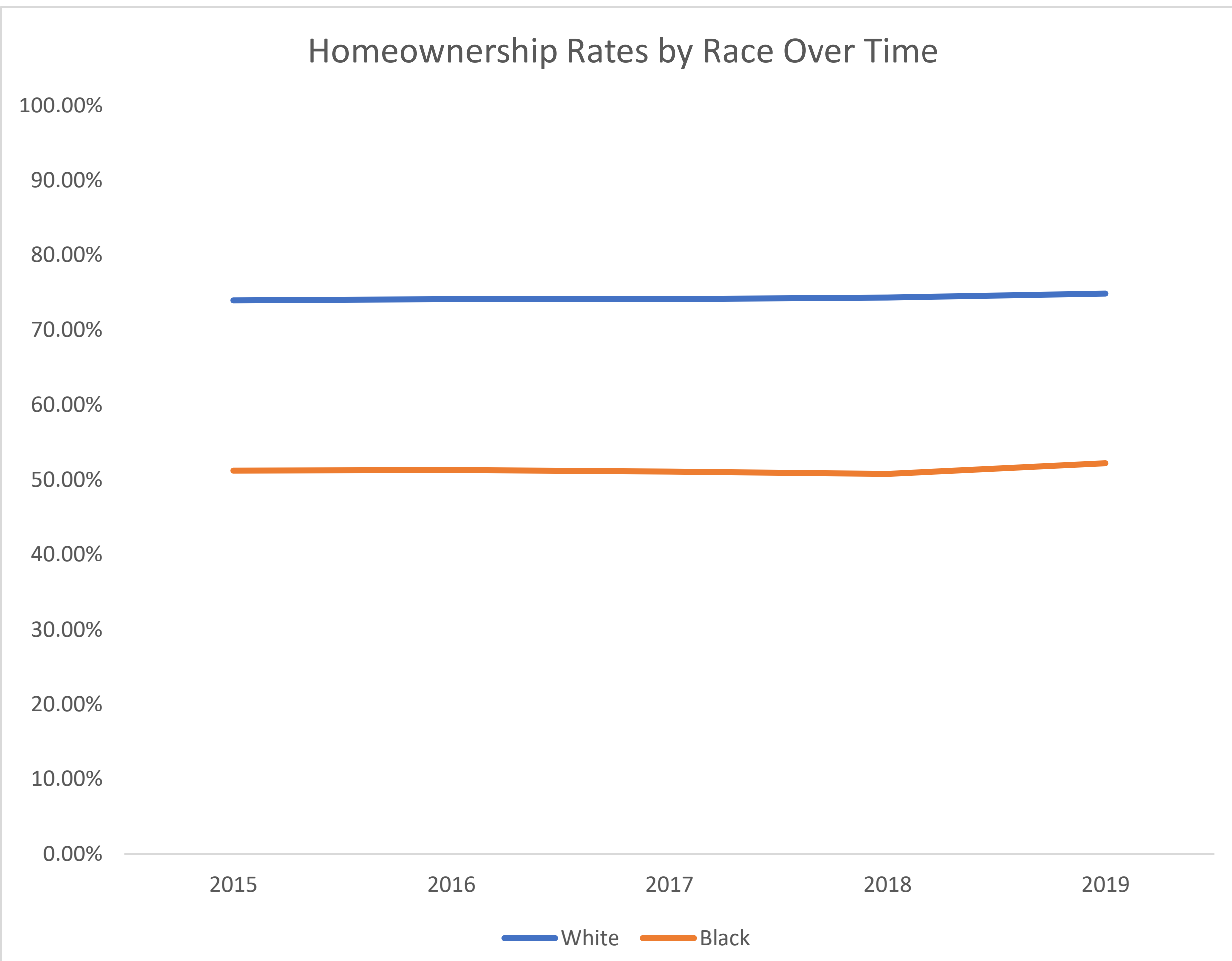
The most alarming statistic from Table 1 is that only 51.30% of black Americans own a home. This is over twenty percentage points lower than white Americans. The homeownership gaps between the other minority races and white Americans are smaller but still noticeable. Based on Blacks having the lowest homeownership levels in this sample, it is reasonable to infer that the Black coefficient will be the largest and have the most negative effect on homeownership.

There is also a noticeable difference in education levels between the Whites and the Blacks with over a 12% gap. There are also lower education levels for the American Indians in this sample. Due to this, it is expected that controlling for education would improve homeownership probability for Blacks and American Indians. The Chinese, Japanese, and Other Asian individuals all have higher education levels and in some cases employment levels than the White individuals. From this, one can expect that controlling for education and employment won't improve Asian homeownership probability, it may even lower the probability in this case.

I was able to find and compare the average incomes for each race. The income gap between Whites and African Americans is expected and may help explain the coexisting homeownership gap. The income gap between Whites and American Indians is even higher than that of Whites and Blacks which was surprising since the homeownership gap between Whites and American Indians is smaller than that of Whites and Blacks. The higher average incomes for Chinese, Japanese, and Other Asian races are expected based on their higher education levels. Although, it was surprising that their average incomes were higher than the average income of Whites.

Figure 2 visualizes the homeownership gap between Blacks and Whites in this ACS dataset. The apparent homeownership gap is very similar to the one seen in Figure 1 from previous research, only this graph is looking at five more recent years. The homeownership gap between whites and blacks does not seem to have shown any improvement between 2015 and 2019. Since the homeownership gap is clearly still occurring in America, this provides the foundation for the research question of this paper: is discrimination what is causing this homeownership gap?

Figure 2. Homeownership Rates by Race Over Time



V. Results

The regression coefficient results for Equation 1 and Equation 2 are shown side by side for comparison in Table 2. The race coefficients in both equations represent each racial group's probability of homeownership compared to whites. The negative signs on most of the coefficients show the disadvantages that most minorities have with homeownership probability as compared to if they were white. At first glance, it is notable that most of the coefficients are very significant in predicting homeownership. It is also clear that the African_American variable has the largest negative coefficient in both equations, meaning African Americans have the largest disadvantage.

Table 2. Regression Coefficients Showing the Effect of Variables on Homeownership

	Dependent variable: Home Ownership	
	Equation 1: Race Only	Equation 2: Race and Controls
African_American	-0.214***	-0.155***
	(0.001)	(0.001)
American_Indian	-0.099***	-0.040***
	(0.002)	(0.002)
Chinese	0.002	-0.016***
	(0.001)	(0.001)
Japanese	-0.037***	-0.084***
	(0.003)	(0.003)

Other_Asian	-0.075***	-0.083***	-
	(0.001)	(0.001)	
college_grad		0.039***	
		(0.0003)	
age		0.007***	
		(0.00001)	
income		0.0005***	
		(0.00000)	
employed		0.026***	
		(0.001)	
male		-0.017***	
		(0.0003)	
married		0.171***	
		(0.0004)	
Constant	0.727***	0.240***	
	(0.0002)	(0.001)	
Observations	7,142,794	7,142,794	
R2	0.019	0.140	
Adjusted R2	0.019	0.140	
Residual Std. Error	0.453 (df = 7142788)	0.424 (df = 7142782)	
F Statistic	27,705.910*** (df = 11; 7142788)	106,027.600*** (df = 5; 7142782)	

Notes: Data pooled from the IPUMS USA: ACS 2015-2019, 1% sample size. Only ages 20-70 included. All coefficients significant at the 1% significance level except 'Chinese' variable in equation 2. 7,142,794 observations of 22 variables. Income coefficient measured in thousands. *p<0.1; **p<0.05; ***p<0.01

The coefficients of Equation 1 show the difference in each racial group's probability of home ownership compared to whites (i.e., the reference group). For example, blacks have a 21.4% lower probability of homeownership compared to whites, by far the largest disadvantage of all the listed minority groups. American Indians also have a 9.90% lower probability of homeownership compared to whites, which is a significant disadvantage. All the races are significant in predicting homeownership except for the Chinese variable, which will be addressed in the below discussion.

According to the results of Equation 2, there is still a difference in the probabilities of owning a home for minority races compared to white Americans, even after controlling for human capital variables. This supports what the Theories of Discrimination predict will be the result of taste and statistical discrimination in the housing market. Although these differences may be smaller once controlling for the socioeconomic variables, they are still present. The control variables in this equation are all significant predictors of homeownership. Most importantly, Equation 2 shows that race is still a significant predictor since all the race variables are significant. This supports the hypothesis that there is a strong possibility of significant discrimination in housing markets for minorities. The disadvantage of African Americans in the housing market is especially still very large, sitting at around a 15.5% lower homeownership probability than whites, even after controlling for the differences in education levels.

Both the controlled and uncontrolled regressions have a negative coefficient for all the minorities except for the Chinese coefficient that is positive in the non-controlled equation. However, that coefficient is not significant at any of the significance levels. An inference as to why the Chinese coefficient would be negative in the controlled variables equation but positive in the uncontrolled equation is that Asian individuals are likely to have higher educational attainment than other minority races. Therefore, once the education variable was controlled for, they became less likely to own a home as compared to the white Americans. The same can be seen for the Japanese and Other_Asian coefficients increasing in their negative effect on homeownership in the controlled equation, and the same inference applies. The coefficient with the largest negative impact on the probability of owning a home is for the African American variable, meaning that being black has a negative effect on the chances of an individual owning a home. In fact, even after controlling for the human capital variables, the negative coefficient for the African American variable was still notably larger than for all the other races. This negative effect of being black on owning a home, even after controlling for the inequalities that minorities face in education and income, suggests that discrimination is occurring in the housing market. Although one cannot control for every possible outside variable, controlling for education, age, income, employment status, gender, and marital status should give all races an equal chance to own a home. To interpret the income variable's coefficient effect better numerically on homeownership, income is measured in thousands of dollars. This means that for every one-thousand dollar increase in total personal income, an individual is 0.05% more likely to own a home.

As seen in Table 2, there is not homeownership equality for minorities based on the negative controlled regression coefficients. Equation 2 shows that while the other minority variables have smaller negative coefficients than the African American variable, they're still negative, meaning that belonging to any minority race lowers the chances of owning a home as compared to being white. The African American and American Indian coefficients had less of a negative impact on homeownership probability in the Equation 2 results than in the Equation 1 results. The Chinese, Japanese, and Other Asian coefficients had a stronger negative effect in the controlled equation. These coefficients likely got larger because those minorities have higher education and employment levels than all the other races. Therefore, once those human capital variables are controlled, the Asian minorities no longer have that advantage over the other races, causing their likelihood of owning a home to decrease. The largest negative effect was seen with the Black coefficient as compared to being white. Even after controlling for the differences in the available human capital variables, Blacks were still around 15% less likely than Whites with the same characteristics to own a home. In general, the results support my hypothesis that there is discriminatory inequality in homeownership probability for minorities as compared to white home ownership probability.

In addition, Table 2 also helps to show the differences between races in the results of the two regressions' coefficients. ~~The differences represent the amount that is explained by the control variables.~~ The coefficients from Equation 2 represent the effects that each race has on homeownership after controlling for human capital and demographics. Although the negative coefficients do get smaller for the African_American and American_Indian variables, they're still negatively affecting the probability of homeownership as compared to being white, and the negative coefficients get slightly larger for the remaining minority variables. This indicates that even once human capital variables are controlled for, being Asian has a higher negative impact on owning a home than before controlling for those variables, showing discrimination. From this, I draw the conclusion that while just two of the minorities face inequality in human capital levels, all the minorities in this study face discrimination in homeownership probability as compared to Whites.

The R^2 values are not a good measure of fit since the dependent variable in both equations is dichotomous. However, the model F statistics are very high for both Equation 1 and Equations 2. Most of the coefficients are highly significant and generally have the hypothesized signs. Future research could run a logistic regression to test the robustness of my OLS regression results. While logistic regressions would improve the model fit, they would make the coefficients more difficult to interpret. It is important to note that all coefficients are significant for both equations at the 1.0% level except for the Chinese coefficient in equation 1.

VI. Discussion and Conclusion

The above results answer the question of whether the homeownership gap still exists in America. The data supports my hypothesis that minorities are less likely to own a home than white Americans. While the evidence shows this inequality, it is hard to determine whether most of the differences in homeownership levels stem from outside variables that were not able to be included in the regressions, or discrimination. The R^2 values are relatively small for both equations, however this does not indicate that there is not a strong relationship between race and homeownership. The small R^2 values are caused by using linear regression since the dependent variable of homeownership is a dichotomous variable with only two components. As stated earlier, logistic regression would likely improve the model fit but make the coefficients harder to interpret. The R^2 and Adjusted R^2 values for the controlled model (Equation 2) are higher than the equation with no control variables (Equation 1) and all the variables included in Equation 2 are statistically significant. Once controlling for human capital and demographic variables, the race variables better explain the differences in the dependent variable. This is because there are fewer external variables causing differences in homeownership levels because I controlled for education, age, income, employment status, gender, and marital status. Since there are still differences in the coefficients for the different races once the human capital variables are controlled for and the coefficients are still significantly negative, there is evidence that some additional outside force is likely causing these negative effects on homeownership: discrimination. The reviewed literature would support these findings because older studies have already confirmed gaps in homeownership levels between minorities and whites, my research just built upon those findings using newer data and more controlled human capital variables.

The policy implications of these results include a call for more government regulation to improve equal access to housing market necessities like mortgage loans, a call for better education of and easier access to housing market information, and a call for changes to neighborhoods to make them more desirable for all ethnicities. To improve housing market policy and regulations, race could be removed from one of the required fields to fill out on a mortgage application, housing application, real estate agent application, loan application, etc. Policies could also strive to end the cycle of neighborhood segregation by preventing racial steering done by real estate agents (Freeman 2002). In addition, attending college leads to higher homeownership levels, especially when an individual does not have any debt (Aughinbaugh 2013). Therefore, on the government policy side, improvements in access to education would benefit all minorities so that they would be more likely to own their homes someday. For example, promoting equal opportunity for all races and income levels to attend college if they'd like to would likely help to decrease some of the homeownership gap. Whether this be through scholarship opportunities or lowering the cost of college in America, providing access would help lower-income minority families to bridge the homeownership gap.

Now that it has been determined that there is still likely some sort of discrimination in homeownership after controlling for the available human capital and variables, future research could focus on pinpointing where exactly this discrimination is taking place. Is it in the mortgage loan process? Is low confidence what is causing minorities to not even enter the home-buying process? A combination of both? Narrowing down the specifics would help officials create better policies that target the specific causes of discrimination, putting a stop to inequality in the housing market. In addition, a data set that includes more observations of minorities may have better depicted the relationship between race and homeownership. The small data sample with low numbers of minorities may also explain the inequality in homeownership probability. Another possible explanation for the results would be omitted variables that cause discrimination to appear to be there when really there are some outside factors that are not included in the equations. There are certainly other variables out there that would influence homeownership, but those variables were not available in the database. To make the coefficient results more accurate, future studies could look at a sample that contains equal observations of different races so that the lower homeownership probability for minorities cannot be blamed on the small sizes of the minority groups, compared to white Americans. Empirically, future research could also use a logistic regression instead to predict homeownership more accurately, since the ownership variable is a dummy variable with only two possible numeric values: owns home (1) or does not own home (0). The logistic regression would provide a clearer relationship between the dependent variable and other variables.

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